

throughout the range of the species may be synchronized in their flowering is impossible to tell presently with our current meager data.

Just how long the entire life cycle may be cannot be stated conclusively, but we have incomplete data that it may be five years. This is deduced from the following facts. Huber and P. Berry (Missouri Botanical Garden) observed the Rancho Grande plants 30 August 1975. Most of the plants were vegetative, but a few old flowering plants were seen and a voucher was collected [*Berry 1161* (MO)]. This stage presumably represented one somewhat later than that observed in 1979. Apparently, in 1975 a few plants also flowered later than the majority of the plants in the population, and the vegetative plants probably represented vigorous young plants, at least several months older than the seedlings observed in 1979. Further observations by Huber in October 1975, January 1976 (Fig. 1), and October 1976, showed only vegetative plants. No further observations were made until flowering took place in July 1978, but it is assumed that the entire population remained vegetative during the intervening time.

Because *Neurolepis pittieri* in Rancho Grande is in an undisturbed, well-protected environment, is easily accessible, and apparently has a relatively short life cycle (for bamboos), it is hoped that complete observations of its life history and its interactions with other organisms can be made in the future. This could be a good test case for the predator satiation hypothesis proposed by Janzen (1976).

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—Gerrit Davidse, Missouri Botanical Garden, Post Office Box 299, St. Louis, Missouri 63166, U.S.A., and Otto Huber, Apartado 80,405, Caracas 108, Venezuela.

## A NEW SPECIES OF *ALIBERTIA* (RUBIACEAE) FROM VENEZUELA

During the years 1977 and 1978, the Missouri Botanical Garden has collaborated with the Instituto Botánico of the Ministerio del Ambiente y de los Recursos Naturales Renovables of Venezuela in a joint program of botanical exploration to areas endangered by dam projects, drainage and river canalization plans, deforestation and agricultural activities, and other undertakings, all leading to drastic changes and destruction of the natural environment.

In a suite of Rubiaceae obtained from the Estado Apure of southwestern

Venezuela by Dr. Gerrit Davidse and Mr. Angel C. González, the following new species of *Alibertia* was found and is herewith described.

***Alibertia davidsae* Steyermark, sp. nov.**

Frutex 1–1.5 metralis, ramis superne dense pilosulis; foliis petiolatis, petiolis 5–15 mm longis dense pilosulis; laminis lanceolato- vel oblongo-ellipticis apice acutis obtusis vel rotundatis basi cuneatim acutis 6–11 cm longis 2.5–5 cm latis supra glabris subtus modice vel dense molliter pilosulis glabrescentibus, costa media pilis patentibus ad 0.5 mm longis munita, venulis tertiariis supra manifeste reticulato-elevatis subtus inconspicuis, nervis lateralibus utroque latere 8–9; petiolis 5–15 mm longis dense pilosulis; stipulis basi connatis 2.5 mm, lanceolatis acutis vel acuminatis 5–7 mm longis extus secus medium dense puberulis, alibi costatis cum marginibus costarum glabris; inflorescentia terminali sessile 13-flora; floribus masculinis: calyce valde campanulata 5 mm longa supra medium 4 mm lata leviter 5-denticulata dentibus late deltoideis acuminatis 0.1–1 mm longis intus glabris extus pilis patentibus munitis; corollis infundibuliformibus 9–17 mm longis, tubo 6–8 mm longo supra medium 3 mm lato intus dense tomentello praeter basin glabram 1 mm extus minute adpresso-puberulenti, lobis ovato-lanceolatis acutis 8.5–9 mm longis 3 mm latis extus minute adpresso-puberulentibus; antheris linearibus 6.5 mm. longis.

TYPE: VENEZUELA. ESTADO APURE: Distrito Pedro Camejo, 11 km E of Paso de San Pablo and 2 km ENE of Fundo Picachón along the banks of the Río Capanaparo, lat. 7°2'N, long. 67°39'W, 45 m, 8–9 May 1977, *Davidse & González 12910* (VEN, holotype; MO, isotype).

Paratypes: VENEZUELA. ESTADO APURE: Distrito Pedro Camejo, 22 km WNW of Paso de Cinaruco, along N bank of Río Cinaruco, lat. 6°34'N, long. 67°42'W, 60 m, 2 May 1977, *Davidse & González 12524*. 4 km NE of El Betun along banks of Río Capanaparo, lat. 6°58'N, long. 67°49'W, 10–11 May 1977, *Davidse & González 13016*. Banks of the Río Capanaparo between caños La Pica and La Guardia, 14 km SW of Urañon, lat. 6°54'N, long. 67°18'W, 35 m, 6–7 May 1977, *Davidse & González 12814*.

This riverine species is found in low gallery forest or savannas bordering streams in lowland terrain. It is related to *A. elliptica* (Cham.) Schum. and to *A. claviflora* Schum. From the latter it differs in the smaller staminate corollas, calyx, and anthers, shorter and narrower leaves, shorter stipules, and denticulate calyx. From the former it is distinguished by the much larger, longer-pointed, and differently shaped stipules which are more strongly pubescent, the longer petioles, the relatively longer and differently shaped leaves, the longer staminate corolla and calyx, and the densely pilosulous calyx.

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—*Julian A. Steyermark, Instituto Botánico, Apartado 2156, Caracas, Venezuela.*